

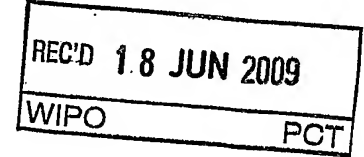
# PATENT COOPERATION TREATY

# PCT

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)



Applicant's or agent's file reference <b>F-867-P</b>	<b>FOR FURTHER ACTION</b>		See Form PCT/IPEA/416
International application No. <b>PCT/JP2004/010976</b>	International filing date (day/month/year) <b>22.07.2004</b>	Priority date (day/month/year) <b>23.07.2003</b>	
International Patent Classification (IPC) or national classification and IPC <b>C23C18/31, C23C18/28</b>			
Applicant <b>TOYOTA JIDOSHA KABUSHIKI KAISHA et al.</b>			
1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36. 2. This REPORT consists of a total of 8 sheets, including this cover sheet. 3. This report is also accompanied by ANNEXES, comprising: a. <input type="checkbox"/> sent to the applicant and to the International Bureau a total of sheets, as follows: <input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions). <input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box. b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).			
4. This report contains indications relating to the following items: <div style="margin-left: 20px;"> <input checked="" type="checkbox"/> Box No. I Basis of the opinion  <input type="checkbox"/> Box No. II Priority  <input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability  <input type="checkbox"/> Box No. IV Lack of unity of invention  <input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement  <input checked="" type="checkbox"/> Box No. VI Certain documents cited  <input type="checkbox"/> Box No. VII Certain defects in the international application  <input type="checkbox"/> Box No. VIII Certain observations on the international application                 </div>			
Date of submission of the demand  <b>11.05.2005</b>		Date of completion of this report  <b>19.10.2005</b>	
Name and mailing address of the international preliminary examining authority:  <div style="display: flex; align-items: center;"> <div>                         European Patent Office                          D-80298 Munich                          Tel. +49 89 2399 - 0 Tx: 523656 epmu d                          Fax: +49 89 2399 - 4465                     </div> </div>		Authorized Officer  <b>Ramos Flores, C</b>  Telephone No. +49 89 2399-	



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PCT/JP2004/010976

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**Box No. I Basis of the report**

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1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
  - ☐ publication of the international application (under Rule 12.4)
  - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements\*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):*

**Description, Pages**

1-21 as originally filed

**Claims, Numbers**

1-5 as originally filed

**Drawings, Sheets**

1/2-2/2 as originally filed

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages
  - ☐ the claims, Nos.
  - ☐ the drawings, sheets/figs
  - ☐ the sequence listing *(specify)*:
  - ☐ any table(s) related to sequence listing *(specify)*:
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages
  - ☐ the claims, Nos.
  - ☐ the drawings, sheets/figs
  - ☐ the sequence listing *(specify)*:
  - ☐ any table(s) related to sequence listing *(specify)*:

\* If item 4 applies, some or all of these sheets may be marked "superseded."

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**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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1. Statement

Novelty (N)	Yes: Claims	
	No: Claims	1-5
Inventive step (IS)	Yes: Claims	
	No: Claims	1-5
Industrial applicability (IA)	Yes: Claims	1-5
	No: Claims	

2. Citations and explanations (Rule 70.7):

**see separate sheet**

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**Box No. VI Certain documents cited**

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1. Certain published documents (Rule 70.10)

and / or

2. Non-written disclosures (Rule 70.9)

**see separate sheet**

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International application No.

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**Re Item V.**

1 The following documents are referred to in this communication:

D1 : ANONYMOUS: "Polyimide surface modification by ozonolysis" RESEARCH  
DISCLOSURE, KENNETH MASON PUBLICATIONS, HAMPSHIRE, GB, vol.  
339, no. 37, July 1992 (1992-07), XP007117898 ISSN: 0374-4353

D2 : EP 0 485 699 A (INTERNATIONAL BUSINESS MACHINES CORPORATION)  
20 May 1992 (1992-05-20)

D3 : US 5 803 131 A (IWASA ET AL) 8 September 1998 (1998-09-08)

D4 : WO 02/088422 A (TOYOTA JIDOSHA KABUSHIKI KAISHA; NAKANISHI,

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D4(a) : EP-A-1 380 671 (TOYOTA JIDOSHA KABUSHIKI KAISHA) 14 January

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D5: PATENT ABSTRACTS OF JAPAN vol. 013, no. 302 (C-616), 12 July 1989  
(1989-07-12) & JP 01 092377 A (NIPPON OZON KK), 11 April 1989 (1989-04-  
11)

**2 Novelty:**

- 2.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 1 to 5 is not new in the sense of Article 33(2) PCT. Document D1 refers to a UV/ozone treatment of a polyimide substrate in order to create polar groups (polyamic acid moieties) on the surface which can be subsequently seeded by palladium salt. This method falls within the terms of the procedure specified in claim 4, as is evident from the specific examples in the application. Thus, it can be concluded not only claim 4 but also the resulting product as defined in claim 1 is not new. The same argumentation holds true for claims 2, 3 and 5.
- 2.2 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 1 to 5 is not new in the sense of Article 33(2) PCT.

Document D2 discloses a method for manufacturing a resin substrate comprising the following steps:

- a pretreatment whereby the substrate is immersed into a bath containing cyanide and oxygen (col. 8, lines 38-57) which yields polar groups on the surface of the substrate;
- seeding the substrate with palladium chloride (col. 9, lines 1-32), which results in a resin-composite layer as claimed in claims 1 to 3 of the present application.

- 2.3 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 1-5 is not new in the sense of Article 33(2) PCT.

Document D3 discloses the ozone treatment of a substrate (col. 9, lines 8-15, 35-44, 51-54; col. 10, lines 16-18), followed by seeding the substrate (col. 10, lines 10-15 and col. 4, lines 11-32), which yields substrates having a resin-metal composite layer as defined in claims 1-3.

- 2.4 Since document D4(a) is a publication according to Art. 158(3) EPC of the international application D4 it can be considered an accurate english translation of the international application D4.

This document discloses (see D4(a) claims and page 5, lines 17-34) a method as defined in claims 4 and 5 and also the obtained substrate as defined in claims 1-3 of the present application. Therefore, the application does not meet the requirements of Art. 33(1) PCT, because the subject-matter of claims 1-5 is not new in the sense of Art. 33(2) PCT.

3. Even if the subject-matter claimed would be defined in more precise steps (as referred to in the description), such as a combined UV/ozone treatment followed by Pd/Sn seeding it would not be deemed to involve an inventive step since both steps are well known in the art (see e.g. D1, D5) and are applied for the same purpose as in the present application.
4. The subject-matter claimed is industrially applicable

**Re Item VI**

**INTERNATIONAL PRELIMINARY  
REPORT ON PATENTABILITY  
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International application No.

**PCT/JP2004/010976**

**Certain documents cited**

**Certain published documents**

Application No Patent No	Publication date (day/month/year)	Filing date (day/month/year)	Priority date ( <i>valid claim</i> ) (day/month/year)
WO-A-04 033754	22.04.04	09.10.03	10.10.02

This document discloses the subject-matter of claims 1-5 of the application (see examples in the document).